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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

133476

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on January 31, 2006

Signature \_\_\_\_\_

Typed or printed name Steven J. Rosen

Application Number

10/689,289

Filed

10/20/2003

First Named Inventor

James Edward Johnson

Art Unit

3746

Examiner

Tae Jun Kim

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒

attorney or agent of record.

Registration number 29,972☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

  
Signature

Steven J. Rosen

Typed or printed name

513-489-5383

Telephone number

January 31, 2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

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\*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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ATTY DOCKET NO.  
133476

DOC. ID  
133476D

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James Edward Johnson )  
Serial No: 10/689,289 ) Group Art Unit: 3746  
Filed: 10/20/2003 ) Examiner: Tae Jun Kim  
For: FLADE GAS TURBINE ENGINE )  
WITH FIXED GEOMETRY INLET )

REASONS FOR REQUESTING REVIEW

**Claim Rejections - 35 USC §103(a)**

1. The Examiner rejected Claims 1, 3-5, 7, 8, 10-12, 14-22, 41, 43-45, 47, 48, 50-52, 54, 55, 57-59, 61, 63-65, 67, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (5,404,713) in view of any of Tindell (5,447,283), Creasey et al. (2,956,759), Bullock (3,302,657), and Kerry et al. (2,940,692) and optionally in view of any of EP 0,567,277,A1, Krebs et al. (3,673,802) and Gruner (4,159,624). The Examiner's grounds for this rejection states that it would have been obvious to one of ordinary skill in the art to employ a fixed geometry inlet duct with the gas turbine engine of Johnson or EP 0,567,277,A1, in order to provide a well known type of inlet for the gas turbine engine of Johnson or EP 0,567,277,A1. The Applicant submits that this conclusion has no basis in fact or law and the Examiner used impermissible hindsight in making the rejection and that the Examiner did not take the invention into account as a whole.

2. The Examiner has failed to address the fact that the

secondary references relied upon to show fixed inlet ducts were attached to non-variable cycle engines and that the present Application and the two primary references, Johnson and EP 0,567,277,A1, expressly call out FLADE engines which are described in the specification and in the EP 0,567,277,A1 reference as being variable cycle engines. Thus, the Examiner failed to take into account the significant differences between non-variable cycle and variable cycle gas turbine engines. The Examiner states that the secondary references teach the various fixed geometry inlet ducts recited in the rejected Claims but fails to give a technically valid reason or motivation to combine the references as required by the MPEP and the law. The Examiner fails to take into account the differences between the two types of engines as are appreciated and understood by those skilled in the art. The Applicant respectfully submits that, contrary to the Examiner's conclusion, it would not have been obvious to one of ordinary skill in the art to employ a fixed geometry inlet duct with the configuration above, in order to provide a well known type of inlet for the gas turbine engine of Johnson et al. with advantages including reduced flow losses and/or to allow control of the inlet flow as well as enhanced handling of shock waves and/or to provide a smooth streamlined inlet and/or enhanced handling of supersonic flows into the inlet because nothing in the prior art shows that fixed ducts work efficiently or can handle airflow into variable cycle engines. All of the secondary references cited by the Examiner show only non-variable cycle engines together with fixed ducts.

3. Paragraph 0017 of the present Application states that a FLADE engine is one particular type of variable cycle engine

characterized by an outer fan driven by a radially inner fan and discharging its flade air into an outer fan duct which is generally co-annular with and circumscribes an inner fan duct circumscribing the inner fan. None of the engines disclosed in the secondary references cited by the Examiner show a variable cycle engine of any type, except EP 0,567,277,A1 which discloses a FLADE engine but does not disclose an inlet duct, together with "a fixed geometry inlet duct in direct flow communication with the engine inlet". Furthermore, the EP 0,567,277,A1 reference which does disclose a FLADE engine does not disclose or even mention "a fixed geometry inlet duct in direct flow communication with the engine inlet".

4. The Applicant respectfully disagrees with the Examiner's contention that Bullock teaches a fixed geometry inlet duct 2 in direct flow communication with the engine 12 inlet. Referring to column 2, lines 37-45 of Bullock, Bullock clearly states that some of the air which enters the inlet end of the duct may be allowed to escape through a variable aperture in the duct and, thus, it is clear to anyone skilled in the art that the duct in Bullock is variable and not fixed. This is further evidence that the Examiner has failed to find proper support in the prior art for the 103 rejection and has used improper and impermissible hindsight to make the 103 rejection.

5. The FLADE engine in the Johnson reference is used for avoiding spillage and excess sucking and resulting decrease in ram recovery and spillage drag. This does not appear to be applicable to the long inlet ducts disclosed in the secondary references and nothing in the prior art even suggests such a

combination. The Johnson reference states that the FLADE engine has important air-flow matching characteristics illustrated by a free stream flow area  $A_0$  and the FLADE engine inlet area  $A_I$  through which the total engine airflow passes and that for a given set of operating flight conditions, the airflow requirements are fixed by the pumping characteristics of the FLADE engine 1. If  $A_I$  is too small to handle the air, the engine must "suck in" the lacking amount of air resulting in a decreased ram recovery and, if  $A_I$  is too large, the FLADE engine inlet 13 will supply more air than the engine can use resulting in excess drag (spillage drag) because we must either by-pass the excess air around the engine or "spill" it back out of the inlet. The Applicant respectfully submits that in light of this teaching in the Johnson reference, it would not have been obvious to one of ordinary skill in the art to employ a fixed geometry inlet duct with the configuration above, in order to provide a well known type of inlet for the gas turbine engine of Johnson as contended by the Examiner and, in fact, may teach against an employing a fixed duct with a FLADE engine and that  $A_I$  would no longer be exposed to free stream airflow but rather airflow from the duct and, thus, there would appear no reason to use a FLADE engine.

6. Clearly, the Examiner used impermissible hindsight to make the combination for the 103 rejections. It would appear that the Examiner has no basis in fact or anything even suggested in the prior art to arrive at the conclusion that - It would have been obvious to one of ordinary skill in the art to employ a fixed geometry inlet duct with the configuration above, in order to provide a well known type of inlet for the

gas turbine engine of Johnson. If anything, it would appear to one of ordinary skill in the art to employ a variable geometry inlet duct with the FLADE engine in the Johnson reference. It is clear that the secondary references and the prior art teach to one skilled in the art not to use a variable cycle engine with a fixed duct. It is undeniable that FLADE engine as taught by Johnson and EP 0,567,277,A1, are variable cycle engines. Thus, one must conclude that one of ordinary skill in the art would not employ a fixed geometry inlet duct with the FLADE engine in the Johnson and EP 0,567,277,A1 references.

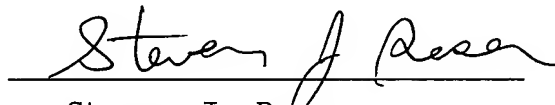
7. It is clear, as evidenced by the Examiner's statements that fail to cite any valid technical reason in any of the references, to combine the cited references. The court clearly teaches us that a conclusion of obviousness is an error when it is not accompanied by clearly elucidated factual teachings, suggestions, or incentives from prior art that shows the propriety of combination. Here, the Examiner has taken two references and combined them without any valid technical reason disclosed or even suggested in the prior art and in fact in direct contradiction of what is known and taught by the prior art. The Examiner has ignored the Applicant's technical argument that variable cycle engines are different from the engines disclosed in the secondary prior art references and that, in fact, the Examiner could not find one instance of a variable cycle engine employing a fixed duct and that, in fact, the prior art teaches against using fixed ducts with variable cycle engines. The Examiner has failed to address the Applicant's argument that one skilled in the art would not combine a variable cycle engine with a fixed duct.

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8. The CAFC in re Rouffet (CAFC) 47 USPQ2d 1453 (7/15/1998) stated "To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness." In other words, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

Respectfully submitted,

A handwritten signature in cursive script, reading "Steven J. Rosen", is written over a horizontal line.

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January 30, 2006

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